

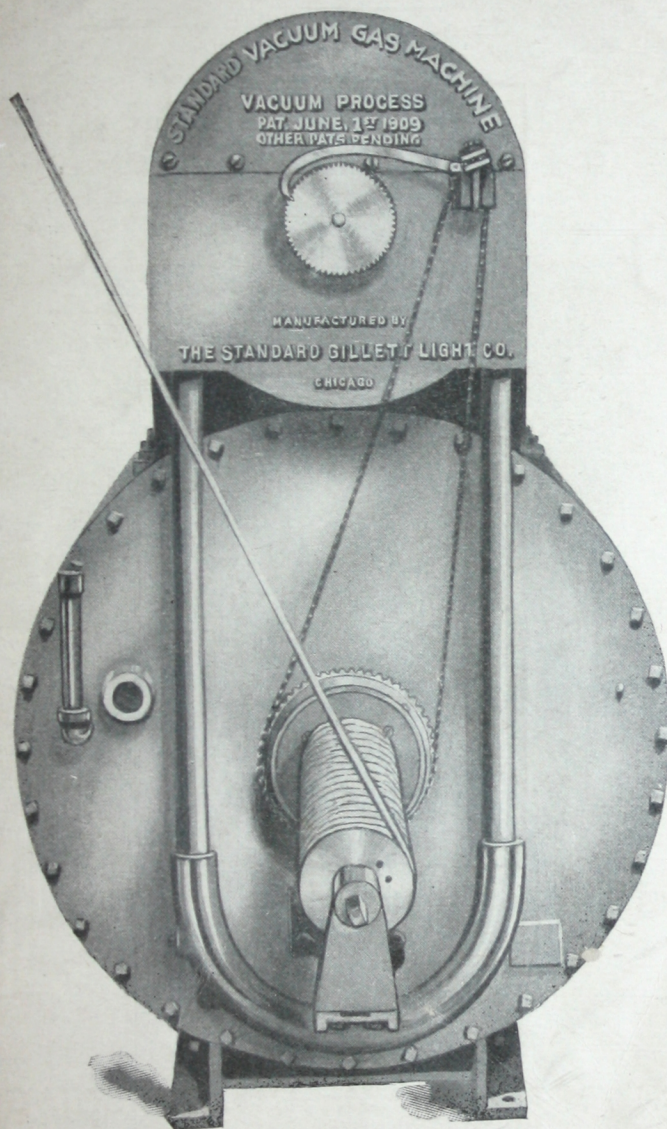




665: 75-

# Standard Vacuum

**GAS MACHINE**



**CRAIN PUMP & LUMBER CO.**

General Eastern Agents

2013 Market Street

Philadelphia

**The Standard-Gillett Light Co.**

9-11 West Michigan St., CHICAGO, U. S. A.



# *An Ideal Light for*

*Residences*  
*Shops*  
*Public Halls*  
*Churches*  
*Factories*  
*Wharves*  
*Cafes*  
*Hotels*  
*Offices*  
*Pleasure Resorts*  
*Parks*  
*Railroad Stations*  
*Streets*

ENTIRE GAS PLANTS FURNISHING  
GAS FOR LIGHT, HEAT AND POWER  
OF MUNICIPALITIES A SPECIALTY



OF INTEREST TO ALL THOSE WHO DESIRE CHEAP  
GAS FOR LIGHT, HEAT AND POWER

## Air Gas

MADE BY

# Standard Vacuum

**GAS MACHINE**

*A Revolution in Gas Production  
Created by Vacuum Process*

18 times Cheaper than Electricity  
13 times Cheaper than Acetylene  
8 times Cheaper than Kerosene  
4 times Cheaper than City Gas

## The Standard-Gillett Light Co.

LARGEST AND STRONGEST MANUFACTURERS OF

**Standard Vacuum Cold Process  
Gas Machine**

Hollow Wire                      Hot Process  
Systems    Boulevard Arcs    Systems  
Gravity Lamps    Portable Pressure Lamps

9 & 11 WEST MICHIGAN STREET

CHICAGO, U. S. A.

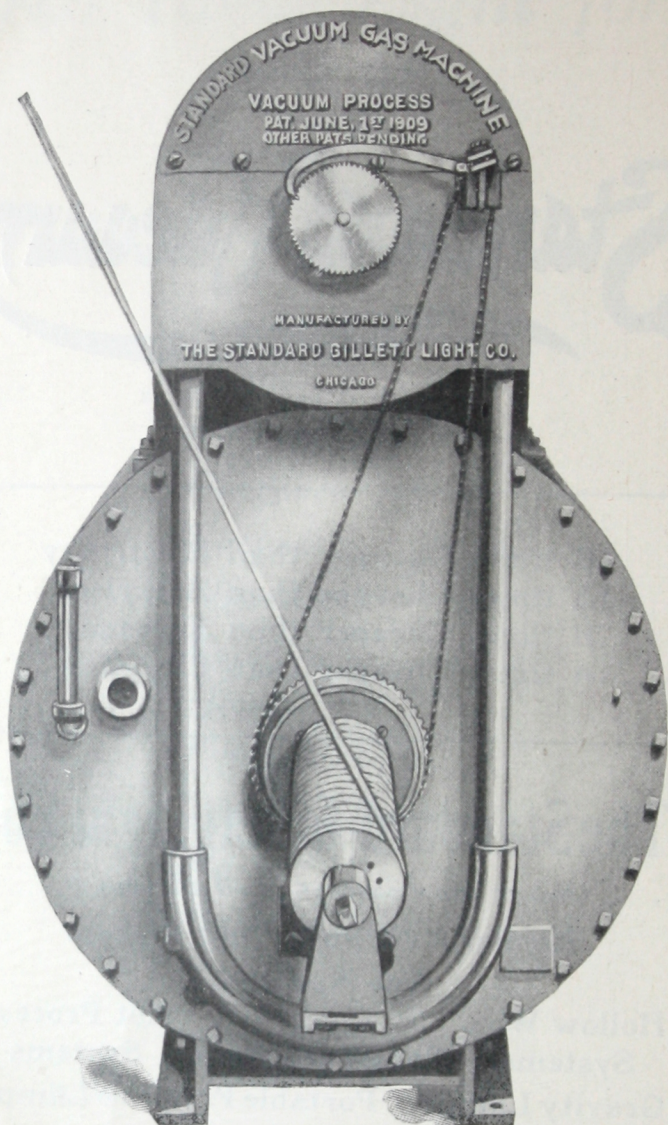
*Long Distance Phone Randolph 2813*

Cable Address: "GASO"

Cable Codes: Western Union, A B C 5th Edition and Private

10 90-B5922 TCF





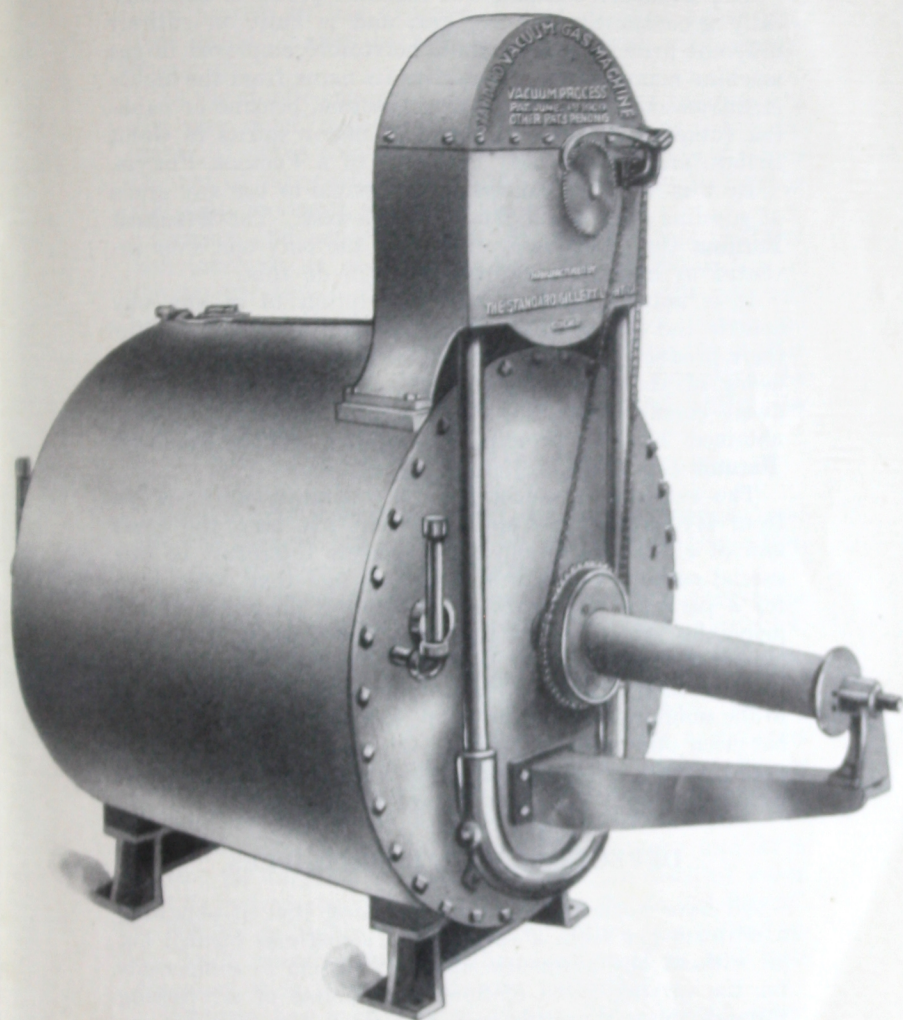
Front View of Standard Vacuum Gas Machine.

Our standard 50-light machine is substantially built of iron castings. The shipping weight is approximately 700 pounds.

DIMENSIONS.

Extreme height .....	52 inches.
Extreme width .....	30 inches.
Extreme length, with windlass...	54 inches.





Side View of Standard Vacuum Gas Machine.

The machine complete, as quoted generally includes 100 feet wire rope, 2 six-wheel pulleys and hooks, weight shell with suspension hook and tank with filling device—also crank.

Cod. Word

1 to 50 Lights.....	Eagle
50 to 100 Lights.....	Eagle two
100 to 200 Lights.....	Eagle three



The **Standard Vacuum** Gas Machine produces automatically a constantly uniform gas, and is built on entirely different principles from those heretofore employed in gas machine manufacture. It derives its name from the highly ingenious method of vaporizing gasoline, benzine or naphtha (otherwise known as petrol or motor spirits in Great Britain and its colonies) by means of a *Vacuum Process*.

By this Vacuum Process it is possible to use any grade of gasoline from the highest to the lowest. The **Standard Vacuum** Gas Machine is absolutely the only one, ever invented by human ingenuity, that will do this.

It is not intended in this description to in any way belittle the efforts of any other company or individual or their product, but to point out in a general way the fallacies of their principles or theories employed, and to dwell chiefly upon the superior and wonderful results obtained by the principles employed in the **Standard Vacuum** Gas Machine.

The automatic production of a constantly uniform gas from Hydro-Carbon Vapor and Air, has been the great aim of all inventors and gas engineers interested in this special subject, but it is a notorious fact that going back for a period of 30 years and until the invention of the principles embodied in the **Standard Vacuum** Gas Machine, no progress has been made during same period, in the underlying principles of the various devices offered to the public in this country and Europe, but the tendency has been one of continually travelling the beaten path of predecessors and occasionally picking up and adopting as new some slight variation or abandoned idea.

### DEFECTS OF OTHER PRINCIPLES.

All have worked along the same idea, that of obtaining a uniform gas from a carburettor, sometimes buried, but all without any automatic auxiliary means to compensate for the varying speed of flow, and volume of air passing through the carburettor, nor making a provision for entirely overcoming the refrigerating principle that steps in, in the process of vaporization.

There is a loss of heat in proportion with the volume of gas being made, and unless this loss is equalized, it is only possible to use the lighter portions of the gasoline, as owing to the specific gravity becoming heavier through loss of temperature, the gas, very rich at first, gradually becomes weaker and unless this residue in the carburettor is drawn off, the gas supply will fail altogether.

Various means were tried to overcome this defect, a so-called mixer being usually employed, but it was simply an unsuccessful attempt to cure the effect, without re-



moving the evil, for science, and the highest authorities have proven, as has experience, that gasoline vapor gas, once made, cannot be satisfactorily mixed with atmospheric air.

As the chief components of gasoline gas are gasoline and air, very much depends upon their conditions. For instance, if air is cold and humid it takes up only a minor amount of vapor while when warmer the amount of vapor taken up increases proportionately.

Science and experience have proven that this predilection increases or decreases in the ratio of the square of the temperature. For instance, at 32° F. the air will absorb almost three times less than at 50° F., while the higher the temperature of the air and the dryer, the greater the vaporization and the richer and more expensive the gas will be and on account of lack of control, will cause smoky mantles.

### GASOLINE.

So little is generally known about gasoline gas and gasoline that we do not deem it improper in connection herewith to devote a few lines thereto.

Gasoline, sometimes called naphtha, benzine (petrol or motor spirits in Great Britain and colonies), is a product, derived from the distillation of crude petroleum and consists according to its place of discovery of *numerous* components, the most important thereof being Pentan, Hexan, Heptan, etc. As all of its components have a different tension and vaporizing or distilling point, the gasoline is *not* a homogenous body. This is what makes its use difficult, and when not properly applied, unreliable.

To be quite clear, gasoline is 17% hydrogen and 83% carbon, its weight is 30% to 38% less than distilled water and its hydrometric gravity ranges from 60° to 90° Baume.

The 90° is highly volatile, the 60° much less so, and so on down, showing how non-homogenous it is and how necessary it is to control its use uniformly.

Gasoline has such strong affinity for air that when brought in contact with a current of it at normal and constant temperatures, it passes readily and entirely into vapor.

### PRINCIPLE OF REFRIGERATION.

This operation obeys the natural law that the conversion of a liquid into gas occasions refrigeration.

Knowing this, let us explain that most of the machines now on the market consist of an air blower, a mixer and a buried carburettor, sometimes one or more combined in one, but involving no change in principle even if a variation in construction.



In these carburettors the AIR GAS is produced.

The carburettor consists of a very large vessel, varying constantly in size with each small increase or decrease in number of lights used. It is constructed generally of sheet metal and is divided into a series of connected cells or coils, so arranged to provide a tortuous passage for the air and frequently filled with cotton wicking, excelsior, etc., which latter generally is an added nuisance, becoming clogged like a coal oil wick with heavy oils.

By passing through this carburettor the air becomes impregnated or saturated with as much gasoline vapor as the quantity and quality of the gasoline and the condition of the atmospheric air will allow. But gasoline not being homogenous or uniform, its lighter and more volatile parts are first taken off by the air, under all circumstances, which causes the gas to become rich and smoky, causes refrigeration to set in and this drop in temperature only acts to reduce the volatility of the already impoverished gasoline, ultimately causing residue and waste.

As a remedy for this defect, various styles of mixers are adopted, some built on beautiful mechanical theories but in practice totally unreliable, because it is a scientific fact that gasoline gas, once made, cannot be satisfactorily mixed with atmospheric air, as gasoline gas is already a mixture of gasoline and air.

Some manufacturers have unsuccessfully tried to overcome this difficulty by means of artificial heat, introduced into the carburettor, frequently causing disastrous complications because the quality of such gas could not be predetermined.

### HOW THE *Standard Vacuum* GAS MACHINE DIFFERS.

Having now pointed out some of the defects of present and previous gas systems, we shall proceed to explain the means by which their defects have been overcome in the *Standard Vacuum* Gas Machine, by giving a general description of the machine and its operation.

While the Vacuum principle has long been used in other very popular lines, for industrial purposes, with great success, the *Standard Vacuum* Gas Machine is positively the first one which employs this principle for the production of gas and is protected by strong basic patents and has already created a revolution in the methods of obtaining Light and Heat. This statement is made with due responsibility and the fullest knowledge of all that has been and is being done along these lines.

The *Standard Vacuum* System has proven so successful and its claims of superiority can so easily be proven by



demonstration, that we invite inspection and challenge criticism. It is our especial desire to attract the attention of every one interested and particularly those experienced in these matters, for the appreciation of the exceptional results obtained, will be greater from those having the knowledge of the many difficulties that we have so successfully surmounted.

By this system the cheapest and best form of artificial Light and Heat is obtained, the machine being self-contained, simple, compact, *perfectly automatic* and requires no skilled labor to operate.

By this system for the *first* time, the air is *automatically* and *uniformly* carburetted into a *non-condensing* proportion of Hydro-Carbon Vapor, under varying demands, fluctuations of temperature and during indefinite periods of time.

#### PROPERTIES.

The gas produced by this machine is *non-explosive*, *non-poisonous*, *non-corrosive*, *non-asphyxiating* and its products of combustion are inodorous.

#### SAFETY.

The gas is non-explosive, and there is no danger possible from a leak; it cannot be lighted at a broken pipe or open cock owing to the fact that it already contains a maximum proportion of air and a further admixture of air, caused perchance through carelessly allowing a cock to remain open, precludes absolutely the possibility of an explosion or asphyxiation.

#### COMBUSTION.

The gas is most advantageously made combustible with Standard-Gillett special patent burners. After the gas has passed through the atomizers in these burners, it can only then be lighted. The flame is of a pale blue color, and has a somewhat purple outer ring, showing perfect combustion.

In itself, the gas is normally non-luminous and possesses no lighting power, although it will be understood later that the gas can, in our machine, be made so rich that it will burn like city gas without a mantle.

#### BRILLIANCY.

When used with an incandescent mantle the effect is most brilliant, far surpassing the ordinary incandescent gas or electric light.

The intensity of the light when compared with that obtained from an ordinary mantle with coal gas, is found to be as 4 to 1, that is to say, the light from the same sized



mantle, with our machine is four times greater and has no distorting effect upon colors. With our new patented burner a light from 25 to 500 candle power is obtainable at each mantle.

### CONVENIENCE.

No other operation is required to ignite than to turn cock open and to apply burning match, or a by-pass may be employed igniting by merely pulling chain. The machine being automatic works instantly and turning lights off again, sets it at rest, making gas only when needed.

### SUITABILITY.

For all purposes and places where light is required, indoor or outdoor, in towns, villages, country homes, factories, railway stations, churches, for heating, gas fires, for laundries, enameling ovens, greenhouses and all general domestic, commercial and industrial purposes, it is by far the best and cheapest system in existence.

No matter what form of artificial light is being used, the saving effect, even in small installations, is so great that it will pay any consumer to discard electricity, *acetylene*, coal gas or coal oil lamps and install the **Standard Vacuum** System which will give all conveniences of Light and Heat, the saving paying for the plant in a few months.

### COMPARATIVE COST OF LIGHTING.

One cubic foot of gas as made in **Standard Vacuum** Gas Machine yields from 12 to 14 candle power light. A gallon of common deodorized gasoline will under ordinary conditions make 500 cubic feet of gas and yields therefore 7,000 candlepower light. Accordingly at 12c per gallon 1,000 candles would cost per hour about 2c. This has been proven in actual usage where gasoline supply and consumption of ready made gas was accurately noted and even better results are on record, one just recently, where all conditions were ideal and where production actually cost but one (1) cent.

The above means gas at 24c per 1,000 cubic feet.

City gas ranges from 75c to \$1.50 or even \$2.00 per 1,000 cubic feet in smaller cities.

A fair average for comparison would be:

\$1.00 per 1,000 cubic feet for city gas, which would make 1,000 candlepower cost.....	10	cents
1,000 candle power electricity by newest Tungsten lamps, estimating $1\frac{1}{4}$ watts per candle at 10c per kilowatt would cost.....	12½	cents
One pound of calcium carbide costing 4c will yield 4 ft. of acetylene gas. One foot of		



acetylene gas yields theoretically 48 candle power per hour, but in practice only 40 candle power per hour; 1,000 candle power will therefore cost .....25 cents

### GENERAL DETAILS.

The gas making process consists of supplying a very small and graduated quantity of gasoline, from the general supply, elevating it by means of miniature buckets, each of a capacity of a few grains, and feeding it by gravity through a small pipe, into a special chamber, formed in one end of an inside drum. For convenience, this chamber may be called the carburettor and is connected through a suitable sized pipe or air intake, to the atmosphere, without. This carburettor forms one end of an ingeniously constructed drum.

In operation, a partial revolution of this drum draws in the vapor, from the carburettor, carries it down under the water, compresses it and delivers it at the other end of the drum as finished **Standard Vacuum Gas**. However, the indrawing of this vapor from the carburettor, temporarily creates a *vacuum* therein until a new supply of air and gasoline can be inspired therein.

A measured quantity of atmospheric air and gasoline rush to fill the rarified space, making an ideal and perfect vaporization.

As a very limited supply of gasoline is transformed from a liquid into a gas, the application of the refrigerating principle is remote, but far removed as it is, any slight drop in temperature is equalized by a higher temperature of the water surrounding.

By taking gasoline from the bottom to the top of supply tank, we always get its heavier and lighter parts mixed uniformly, so that the quality of **Standard Vacuum Gas** will be the same. By any other means of carburetting or supplying gasoline rapid deterioration sets in.

### GASOLINE FEEDING REGULATION.

The **Standard Vacuum Gas Machine** has a feeding device which can be so regulated as to introduce ten grains as well as 300 grains in a cubic foot of air, should we choose to. Practice has shown that this method of making gas is absolutely reliable, giving the best results as to economy and brilliancy.

It is absolutely impossible for any other machine to make one thousand candle power hours for 1c, a thing which is absolutely possible and proven in the **Standard Vacuum Gas Machine** by actual, careful and scientific tests.



## NO OTHER MACHINE CAN DO IT.

No other machine has as yet been made that can use common or deodorized gasoline, without applying heat, but all are bound to use high test, very expensive oil. In short, the **Standard Vacuum** Gas Machine will make gas of always uniform quality, from common gasoline as well as any other grade and at a very cheap rate, while the other machines can only use the highest grade, for they cannot predetermine the quality of the gas.

## MOTIVE POWER.

As will be seen from cuts displayed this is a weight driven machine. The question has frequently been put to us why we advocate this method of drive, and we have always replied that where capacities up to 500 mantles are used this drive is by far the most practical for all purposes, because it is always ready for instantaneous use and weight power costs absolutely nothing, as it can be wound up in a few minutes by a boy or child. Larger installations for lighting or heating large buildings or small towns might be driven by motor power, in which case the amount of motor gas used cuts little figure and since so large a plant requires the periodical attention of somebody anyhow. In this case, however, the motor must either be running at all times or a gasometer is necessary.

## PATENTS.

The mechanical features of this machine have, in part, been patented in June, 1909, while the claims covering basic principles involved and many other mechanical additions have recently been allowed by the Examiner in the Patent Office, and will be issued in due time, together with new claims now pending.

## GAS PIPING.

**Standard Vacuum** Gas is cheaper when delivered through suitably sized pipes than through pipes that are too small.

For those who have their house already piped for city gas, the highest results can be obtained. The same is true and holds good for premises already piped for Acetylene Gas, by merely enriching the gas.

Greatest number of feet to be run.	Size of pipe.	Greatest number of burners to be supplied.
30 feet	1½"	2 burners
50 feet	¾"	10 burners
70 feet	1	20 burners
100 feet	1¼"	40 burners



Greatest number of feet to be run.	Size of pipe.	Greatest number of burners to be supplied.
150 feet	1½"	60 burners
200 feet	2 "	125 burners
300 feet	2½"	200 burners
500 feet	3 "	300 burners
1000 feet	4 "	500 burners

All pipes leading to bracket or wall light burners should connect to main riser from floor below and tend to drain back into main riser. No horizontal pipe to burners should be under ½" diameter, but drops *can* be as small as ⅜" except when more than two lights are used.

All ceiling pipes should pitch back to main riser, the same rules governing as for city gas.

For gas stoves or ranges 1" pipe should be used.

One burner of a gas stove will ordinarily require as much gas as 5 to 6 of each 70 candle power burners. This gas will not blacken pots or pans and is intensely hot. More so by 18% than city gas, as in the process of combustion it developes so much less H<sub>2</sub>O.

### THE TRUTH ABOUT ACETYLENE.

This light has been introduced more recently, with a greater force, owing to the fact, it is said, that manufacturers of Calcium Carbide are supporting and pushing the manufacture of acetylene machines. However, after some years of flourishing, the use of Acetylene plants in Europe has entirely waned; it was proven that the light was too expensive, often dangerous, and required too much attention, to get a satisfactory result; so now-a-days it is scarcely possible to sell an Acetylene Plant in Europe.

Further, Acetylene cannot economically be used for cooking and heating purposes, or when forced to do this work, is more expensive than Electricity, which is regarded as the dearest fuel.

Another, and very likely the greatest drawback is, the daily attention required. The bad smelling residue of Calcium Carbide must be cleaned out often, and at the same time water must be supplied, and the burners inspected, which being supplied with very fine holes, are liable to become clogged.

To overcome this tremendous handicap, the excuse is frequently employed by claiming that Acetylene Plants are very inexpensive, as they relate to the number of burners delivered. In other words, this would mean that a 50-light Acetylene Plant is the equivalent of a 50-light **Standard Vacuum Gas Machine**. The only possible comparison that can be struck between two such machines is that they sell for the same price—

But a prospective purchaser is brought to dwell on the



number of burners solely, without any consideration as to the comparative value of each burner.

However, 50 Acetylene lights and 50 **Standard Vacuum** lights are two entirely different things.

One Acetylene burner usually means 20 candle power and one Standard burner usually 70 candle power. Thus an Acetylene machine of 50 lights yields 1,000 candle power against 3,500 candle power in a 50-light **Standard Vacuum** Gas Machine, which effect will cost in former 25c and in latter 7½c per hour, or less. Standard Gas is therefore many times as cheap as Acetylene gas.

Besides the large saving in operation the **Standard Vacuum** Gas Machine needs very little, if any, attention.

There is absolutely no danger from explosions, and its hygienic qualities are far ahead of any other illuminant which uses the oxygen out of the air you breathe.

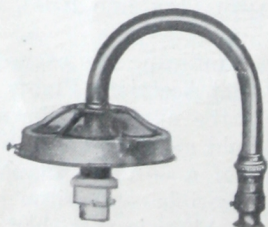
The following accurate table will show a comparative cost of burning 1,000 candle powers one hour:

Electricity—Tungsten lamps at 10c per k. w. ....	12½c
Electricity—Ordinary carbon lamps .....	35c
Welsbach Gas Burner, gas at \$1.00 per 1,000 ft. ....	8c
Kerosene Central Draft Lamps.....	16c
Acetylene .....	25c
Other Gas Machines.....	8c
<b>Standard Vacuum</b> Gas Machine.....	2c

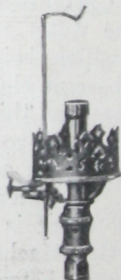
### STANDARD GAS BURNERS.

Any properly constructed incandescent gas burner could be used, but the claims of different manufacturers have fallen so short of accomplishing perfect combustion, that we were compelled to construct one scientifically perfect, which can be used to great advantage, not only with Standard Gas but with artificial and natural gas as well.

As it has been shown that Standard Gas as made in **Standard Vacuum** Gas Machine is of uniform constituency and that one cubic foot produces 14 candle power of light,



Inverted Burner.  
Code, Ebony.



Vertical Burner.  
Code, Ecarte.



the question of supplying a suitably large and hot flame to cause perfect brilliancy of mantle according to its varying sizes and quality had to be provided for.

These burners are constructed in such a manner as to effect a suitable flow of gas with little manipulation. By a short turn a very large flow of gas can quickly be obtained or the gas may be turned very low or entirely out if desired. Therefore, with a suitable large mantle, from 25 to 500 candle power can be obtained.

But a minimum amount of air regulation is required for Standard Gas already contains 7% Pentan, 73% Nitrogen, and 20% Oxygen, and is the healthiest, most hygienic luminous gas known to science. Its specific gravity is 1.12, but little more than atmospheric air.

### HYGIENE.

**Standard Vacuum** Gas containing so large a proportion of atmospheric air is absolutely the most healthful, by reason of the fact that it uses such a very small additional amount of the air one breathes.

By burning the following quantities of fuel, which result in an average development of 50 candle power, the quantity of air required and the respective products of combustion created, are shown in table below:

(From the statistics of a German recognized authority.)

	Quantity	Candle Power	Air Required	Products of Combustion		
				CO <sub>2</sub>	H <sub>2</sub> O	N <sub>2</sub>
Standard Gas	100 Litres	58 C. P.	211 Litres	38	46	246
Coal Gas . . .	100 Litres	40 C. P.	625 Litres	50	150	500
Acetylene . .	30 Litres	40 C. P.	375 Litres	60	30	300
Petroleum . .	1-5 Litres	50 C. P.	2125 Litres	272	337	1700

Note.—28¾ litres are equal to one cubic foot.

About danger of explosion, it may be added that, as found by science, acetylene gas becomes explosive when a 3½% mixture is effected, city gas with 7½%, and Standard Gas only when 35% becomes mixed with air.

Standard Gas is therefore *least* explosive of all.

### SIZE OF MACHINES.

For all practical purposes, we will at the present time market as regular stock, machines, namely, for

#### 1 to 50 LIGHTS, 50 to 100 LIGHTS.

It is well known that other manufacturers resort to putting out a various scale of sizes ranging from considerably below to several times this size. Machines with smaller capacities usually fail, when during the congested hours



of meal time or the like they are simultaneously used for lighting, cooking, and even heating.

By concentrating the manufacture in larger quantities on one size machine we are able to produce and sell it at the same or less cost of much inferior and smaller ones, and be prepared to make very prompt deliveries.

At the same time, the sizes of our machine is by no means confined to 100 lights, and requests for machines of 150, 200 and on up to 500 and 1,000 lights, will receive special detailed reply.

There are a number of these larger machines in use and owing to the *non-condensing* qualities of Standard Gas, 200 installations have at this date already been satisfactorily effected of Municipal Plants, for lighting streets and parks, as well as lighting homes, and furnishing gas for cooking and heating. One Municipal Plant is serving a town of 20,000 inhabitants.

Special details on application.

### FIXTURES.

As any gas fixture or piping can be used, it would require a limitless number of plates to set forth the many ramifications of design and taste required to suit all, and we will confine ourselves to a few neat fixtures.

Any special fixtures can be supplied and sketches or plates may be had upon request. The only precaution to follow when building, is to pipe house with pipes not smaller than regular plumbers' schedule, and to use no smaller drop than  $\frac{3}{8}$ " internally and preferably  $\frac{1}{2}$ " to provide a good flow without too much friction.

The question of glassware is likewise a matter of choice, and while we will confine ourselves to showing only a few tasty designs, for prompt delivery, it should likewise be remembered that we can easily supply any number of designs at reasonable prices.

Fixtures can be had either with inverted or upright mantles.

### WHAT A FEW REAL USERS SAY.

#### SOFT ON EYES.

Pioneer Council No. 31.

Rio Vista, Va., July 24, 1910.

I am instructed by Pioneer Council No. 31, Kr. O. U. A. M., to express to you the satisfaction which the gasoline gas machine, bought of you, gives to the council. The lights are very brilliant, yet the light is soft, steady and no way trying to the eyes.

Again expressing our satisfaction, I am,

Very respectfully yours,

C. W. BLACKBURN, Rec. Sec.



## USES DEODORIZED GASOLINE.

A. & C. Wright,  
General Railroad Contractors.  
Home Office:

Ashland, Va., Aug. 25, 1910.

I am in receipt of your letter asking me for a statement as to how I am satisfied with the Standard Gas Machine I bought from you early in April.

I want to say that I recommended your Gas Machine to my own brother, as well as to other parties here in Ashland, which I would not have done were I not perfectly satisfied with it.

I can only state that I am using deodorized gasoline, costing 12c per gallon. The light is brilliant and uniform, and the machine is simple in operation, requiring but little attention.

As to the cost of the lights, I am unable to give exact figures, as I am using gasoline from the machine storage tank for other purposes, but I found out so much, that the gas lights are five to six times cheaper than my previous kerosene lights, and that I believe your claim, twenty Welsbach lights burning for one hour cost only three cents, is not exaggerated.

Trusting this will serve you, I remain,

Very truly yours,

C. WRIGHT.

## 1,000 CANDLE POWER 11-5c PER HOUR.

Cussons, May & Co., Inc.,  
Calendars, Labels, Blotters and Other Specialties.

Glen Allen, Va., Feb. 17, 1910.

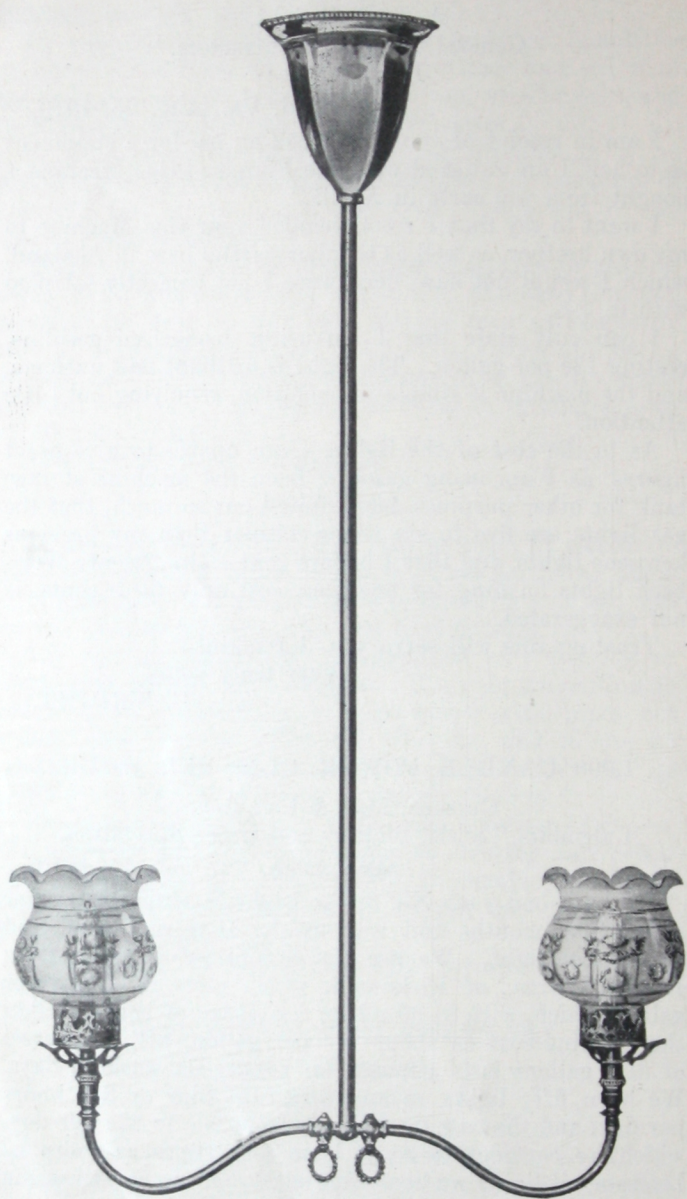
We have had your No. 3 Gas Light Machine in use for about four months and we consider it a very good and economical light. We use the deodorized gasoline from Harwood Bros., of Richmond, which costs us 13½c per gallon, which, with \$1.00 rebate for return of barrel, makes the gasoline cost us about 11c per gallon, net. A barrel of fifty gallons lasts a month, or twenty-six working days. We burn fifty lights on an average of four or five hours per day, and the cost therefore is from 20c to 22c per day, which we consider to be at least four times as cheap as kerosene oil lights we heretofore used, and we must say the gasoline light is far superior to oil.

Considering it all in all, it is a very good and cheap light. Wishing you success with the machine, we are,

Very respectfully yours,

CUSSONS, MAY & CO., INC.,  
E. J. Treevett, Pres.

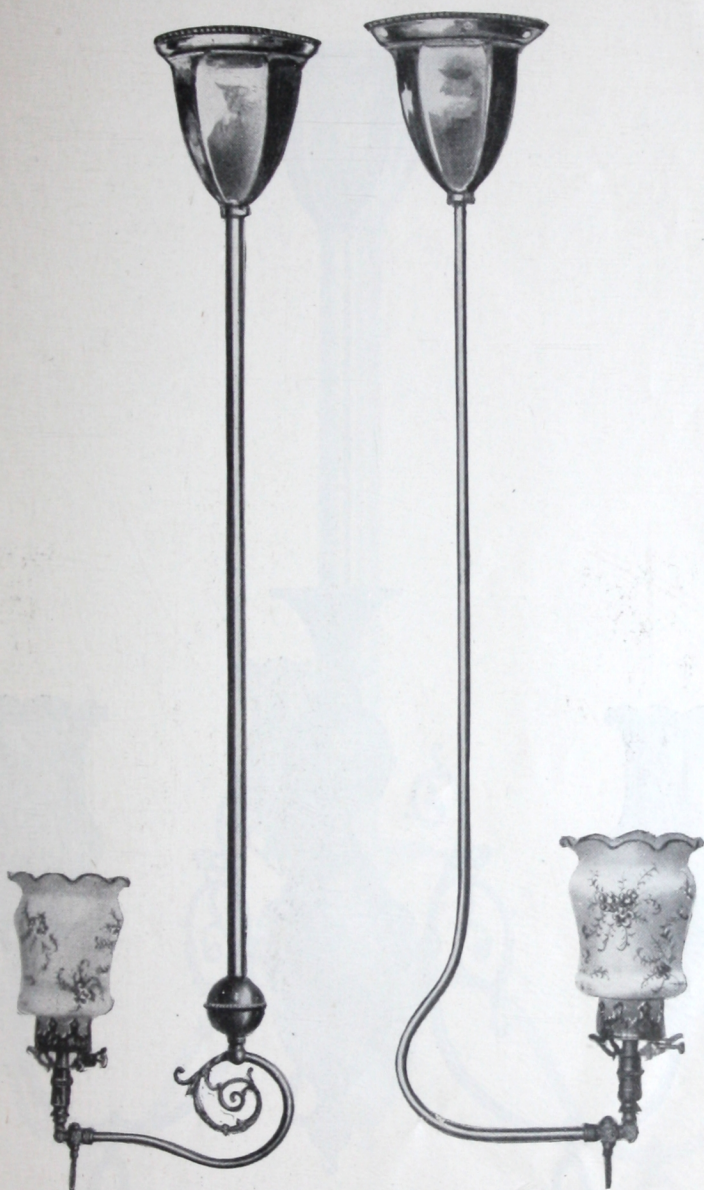




No. 1016. 2 Light Fixture. Code, Eager.

Regular length, 36 in.; Glassware V No. 1016. Any fixture can be had with inverted or upright mantles and glassware accordingly.





No. 891. Fancy Pendant.

Code, Ear.

Regular length, 36 in.

Glassware, V No. 891.

No. 876. Single Pendant.

Code, Each.

Regular length, 36 in.,

Glassware, V No. 891.





No. 1002. 2 Light Chandelier. Code, Earl.

No. 1002. 3 Light Chandelier. Code, Earn.

Regular length, 36 in., Glassware V No. 1002.





No. 1067. 2 Light Chandelier. Code, Earny.  
Regular length, 36 in., Glassware V No. 1067. Can be  
had in 3 lights. Code, Elude.





No. 900 Art Table Lamp.

With No. 287 art dome in light green, complete with 6 ft. metal hose and stork neck. Code, Earth.

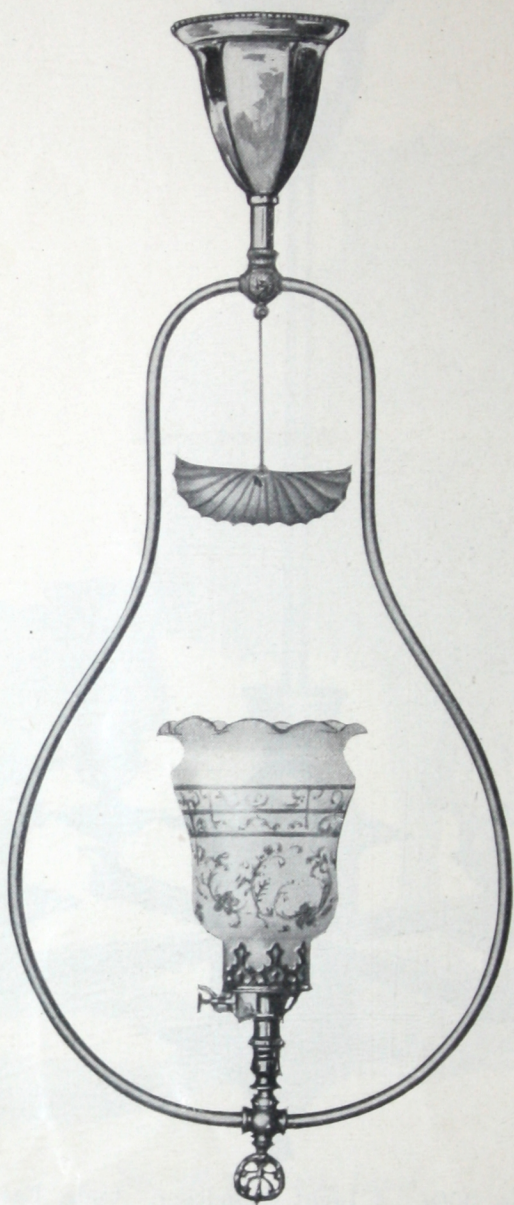




No. 3064. 4 Light Chandelier. Code, Ease.

36 in. regular length. Glassware V No. 1002. Can be had in No. 2 light. Code, Embalm.

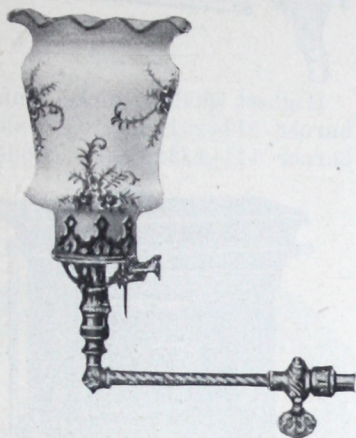




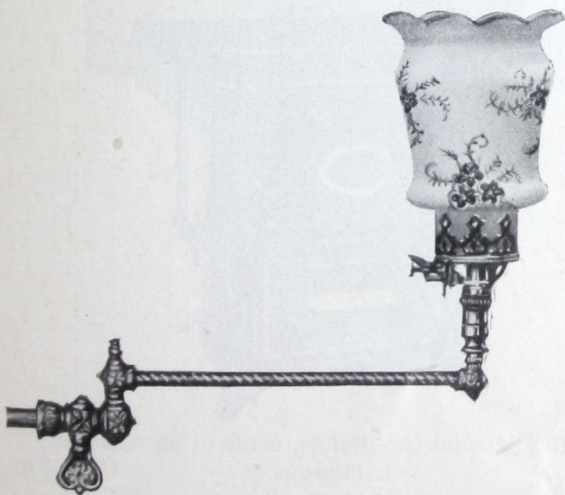
No. 834. Harp. Code, Easel.

Regular length, 36 in., Glassware V No. 834.



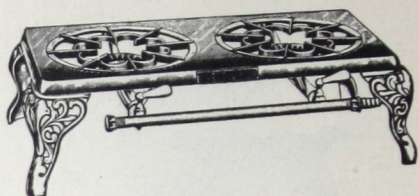


No. 401. Stiff Bracket. Code, Easily.  
6½ in. rope gilt. Glassware V No. 891.



No. 403. One Swing Bracket. Code, Elfin.  
11 in. rope gilt. Glassware V No. 891.

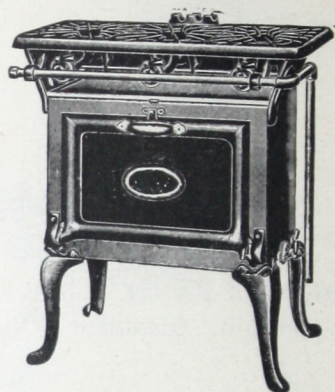




Highest quality, nickel finish.

2 burner  $11\frac{1}{2} \times 21 \times 6\frac{1}{2}$ . Code Elicit

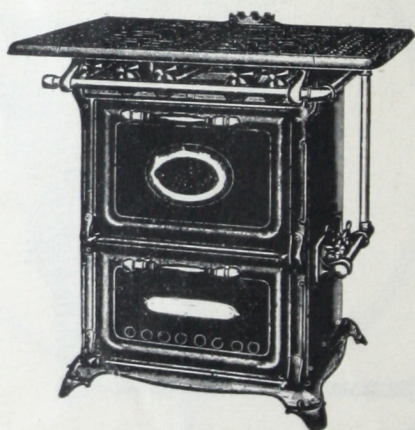
3 burner  $11\frac{1}{2} \times 32 \times 6\frac{1}{2}$ . Code Elk



No. 13 Diamond Gas Range, nickel trimmings. Code Elite.

*Dimensions.*

Oven  $18 \times 12 \times 12$ . Cooking surface  $29 \times 14$ . Height 33 in.



No. 18 Diamond Gas Range, made of steel, nickel trimmings.

Code Elm.

*Dimensions.*

Oven  $18 \times 18 \times 12$ . Broiler  $18 \times 18 \times 9$ . Cooking surface  $36 \times 24$ .  
Height 36 inches.

All stoves are equipped with special burners and regulating device for Standard Vacuum Gas.



U. S. A.

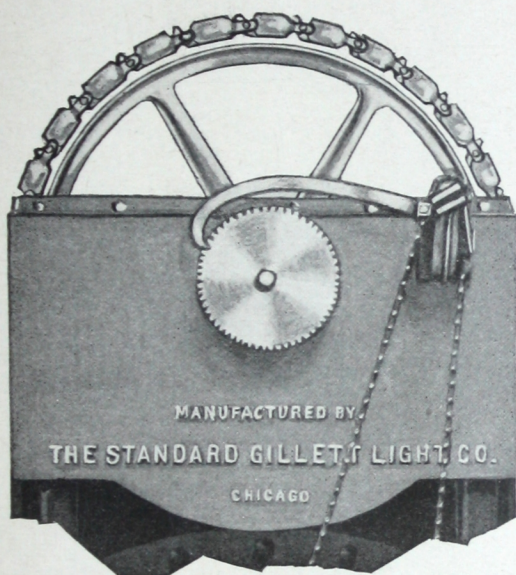
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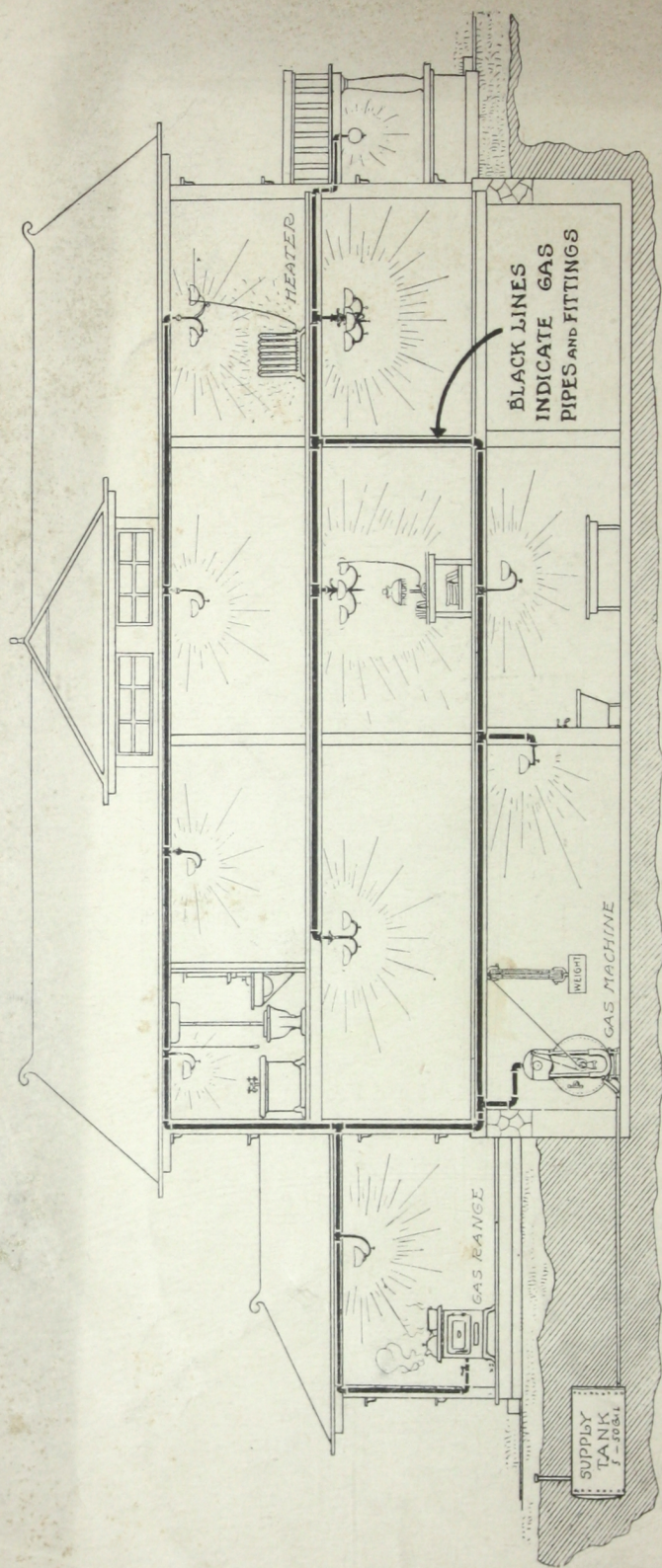
e 36x24.

nd regu-



Sprocket Wheel and Feeding Device





Sectional View of a complete installation of a Standard Vacuum Gas Machine Plant, showing location of Machine, connection to Storage Tank, which may be of any desired capacity and regular gas piping.



Sectional View of a complete installation of a Standard Vacuum Gas Machine Plant, showing location of Machine, connection to Storage Tank, which may be of any desired capacity and regular gas piping.

